Amphibians of Montana

Montana Field Guide

Note
These PDF versions of the Montana Field Guide are intended to assist in offline identification and field work. They are not intended to replace the live Field Guide, as that version contains more information and is updated daily.

This PDF was generated 9/10/2012

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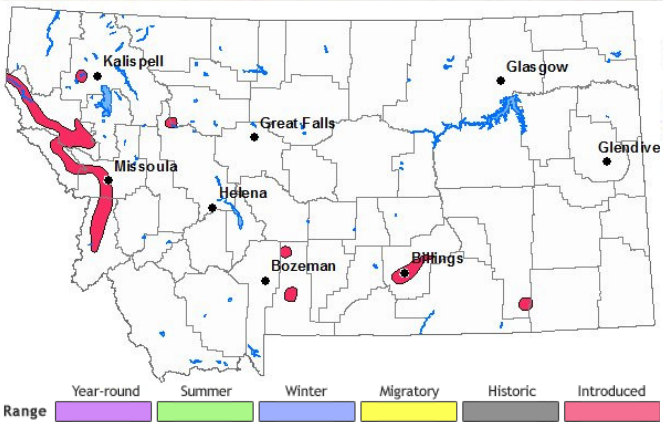
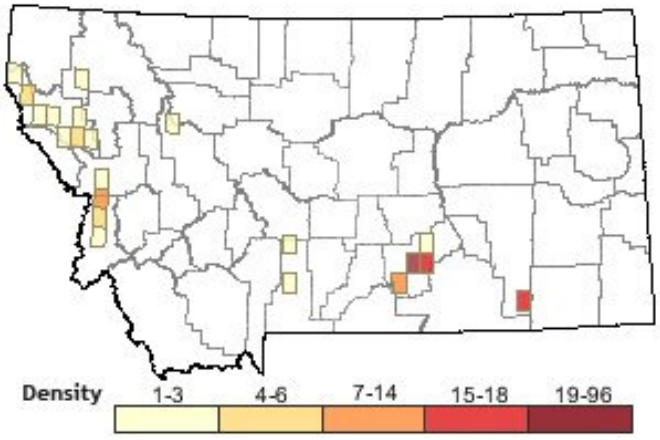
American Bullfrog - *Lithobates catesbeianus*

~~Exotic Species (not native to Montana)~~

Global Rank: G5
State Rank: SNA

~~Agency Status~~
USFWS:
USFS:
BLM:





Number of Observations: 214

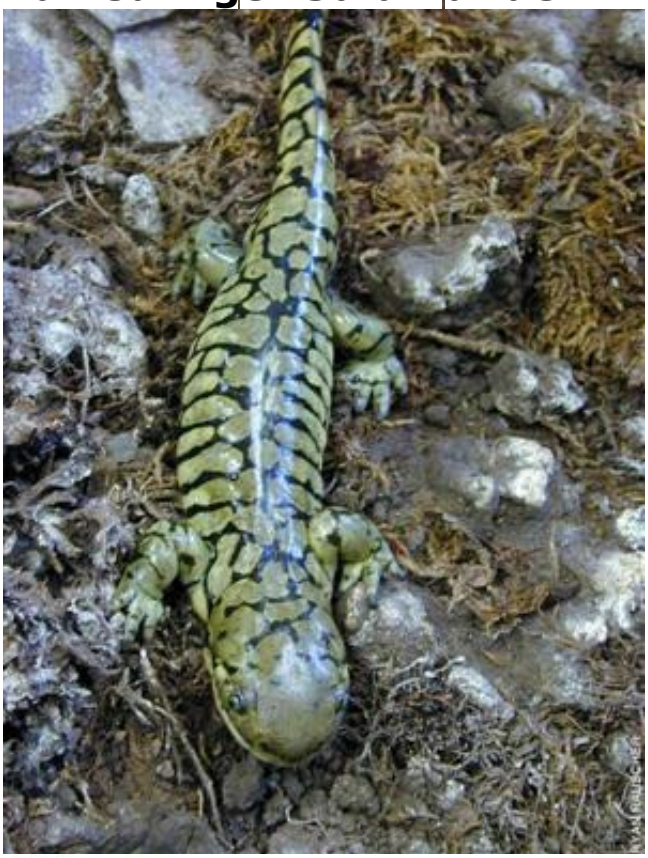
General Description

Adult American Bullfrogs are usually pale to dark green or brownish-green with darker spots or blotches above; the underside is cream to yellowish with gray mottling. A series of black bands often extends across the legs. Body length may reach 8 inches. American Bullfrogs do not have ridges running along the sides of the back, but have prominent ridges running from the eyes over the external ear drums to the shoulders. Egg masses (a one- to-two-egg-thick film of thousands of eggs) may reach several feet across. Tadpoles, which grow to a length of 4.5 inches, are olive-green with numerous black spots above and white or cream with varying amounts of dark mottling below. American Bullfrogs are not native to Montana.

Habitat

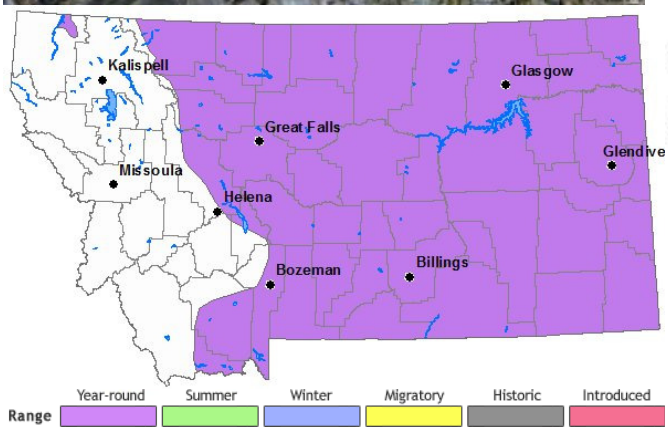
American Bullfrogs are rarely seen far from the water's edge and are usually in the water. They are associated with larger bodies of quiet water; such as ponds, lakes, or backwaters of streams, usually in areas with extensive cattails or reeds. Their loud, deep "jug o'rum" call can be heard from a considerable distance. American Bullfrogs are voracious feeders, eating anything smaller than themselves, including ducklings, fish, mice, frogs, and small turtles. They have been implicated in extirpations of native frogs and turtles, and declines in waterfowl production. They are found in ponds, wetlands and rivers in the valleys. In the Northwest they have so far been unable to invade colder, higher elevation waters.

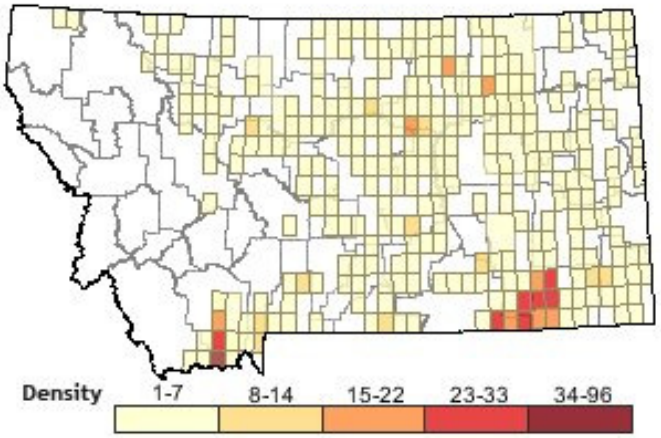
Barred Tiger Salamander - *Ambystoma mavortium*



Global Rank: G5
State Rank: S4

~~Agency Status~~
USFWS:
USFS:
BLM:





Number of Observations: 1556

General Description

Adults vary in color pattern, but background color is usually dark, with lighter blotches of yellow, tan, or green. Adults are large and heavy-bodied with a body length of 3 to 6 inches. Eggs and Larvae: Eggs are typically laid in small clusters of 5 to 120, but may be laid singly. Larvae are typically pale green or brown. They have external gills and are relatively large and heavy-bodied (0.75 to 4 inches). Coloration geographically variable to an extreme, often mottled, blotched, or spotted; adults are stocky, with 11 to 14 (usually 12 to 13) costal grooves, a broad head, small eyes, and tubercles on the soles of the feet; pond-type larva (but lacks balancers), with three large pairs of gills, vomerine teeth in U-shaped pattern, and dorsal fin extending to region of axilla; adults usually are about 15 to 22 cm in total length (to about 34 cm) (Stebbins 1951, 1985; Behler and King 1979; Conant and Collins 1991).

Habitat

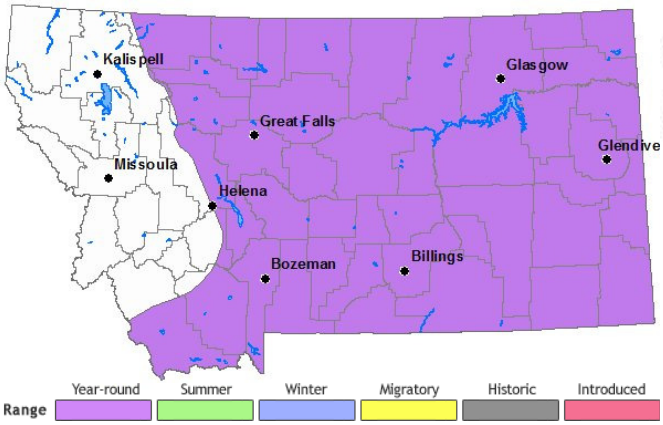
Tiger Salamanders in Montana are primarily associated with prairie or agricultural habitats. They breed in ponds, lakes, springs, intermittent streams, and stock ponds, usually those without fish present. Adults go to the breeding ponds soon after snowmelt; after breeding, adults may remain in the ponds or move to upland areas and live in burrows. Eggs hatch in 2 to 5 weeks and metamorphosis takes 2 to 24 months. In some locations larval salamanders never transform, but rather become sexually mature and breed while retaining external gills (referred

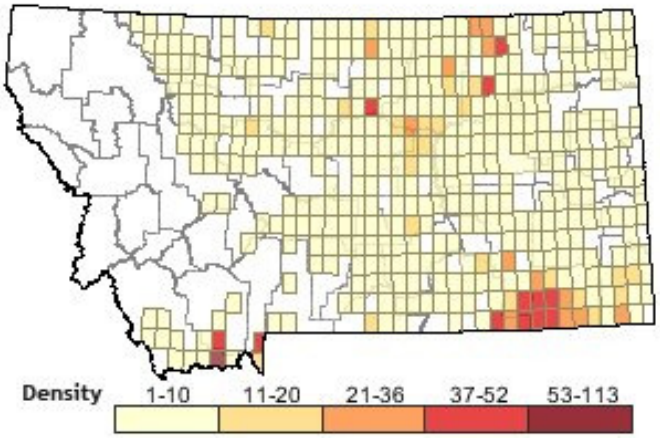
to as neotony). These salamanders are often called "axolotls" or "water dogs". Are benthic in ponds but may enter upper water column at night. At high elevation, tend to select warmest water in ponds (rarely above 25 C). Shallows during day, deep water at night.

Boreal Chorus Frog - *Pseudacris maculata*

Global Rank: G5
State Rank: S4

~~Agency Status~~
USFWS:
USFS:
BLM:





Number of Observations: 3847

General Description

Adults have tiny, almost unnoticeable toe pads; a dark line extends from the snout through the eye to the groin. Basic coloration varies, with background color green, brown, gray, or reddish. Typically three to five dark longitudinal stripes are present on the head and back; in some individuals the stripes may be broken into spots. Adult body length is 0.75 to 1.5 inches. Eggs and Tadpoles: Eggs are laid in clusters of 20 to 100; clusters are usually less than 1 inch across and attached to submerged vegetation. Tadpoles are brown/bronze with eyes located on the sides of the head.

Habitat

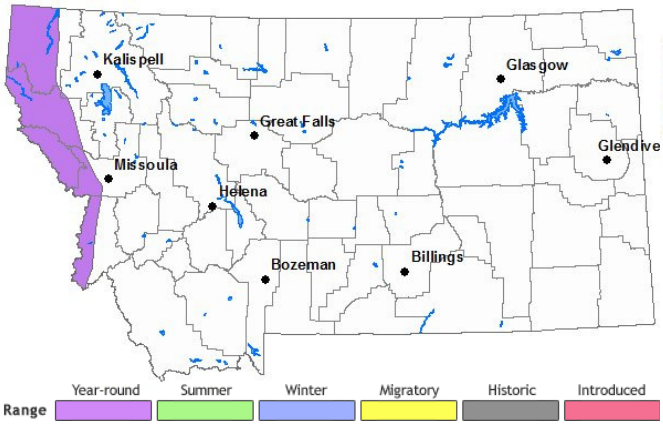
Boreal Chorus Frogs are regularly found in the water only during the breeding period in spring. They announce their presence this time of year by calling frequently at night and sporadically during the day. Following breeding, they move into adjacent uplands and are rarely seen. In eastern Montana, they breed in temporary ponds and small lakes surrounded by prairie (or occasionally open forest) habitats. Eggs hatch in about 2 weeks and tadpoles take 8 weeks to metamorphose. Inhabits marshes, ponds, small lakes in all life zones including lower alpine (Baxter and Stone 1980). When not breeding, generally found in damp grassy/marshy areas or damp forests near water, but has been found up to 0.5 km from water (Nussbaum et al. 1983, Hammerson 1982).

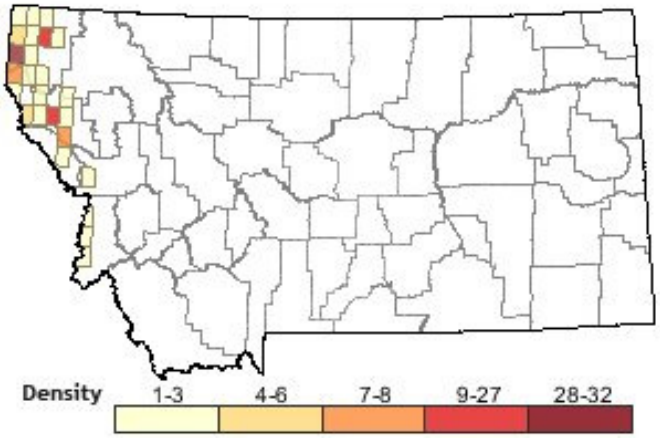
Coeur d'Alene Salamander - *Plethodon idahoensis*

~~Species of Concern~~

Global Rank: G4
State Rank: S2

~~**Agency Status**~~
USFWS:
USFS: SENSITIVE
BLM: SENSITIVE





Number of Observations: 161

General Description

The Coeur d'Alene Salamander is a small, dark gray to black, lungless salamander with a yellowish throat patch, and a yellow, orange, green, or red dorsal stripe. The stripe usually has scalloped edges, though they may be even. The legs are relatively long with short, slightly webbed toes. The adult body length is about 5 to 6 centimeters (2 to 2.4 inches).

Habitat

The occupied habitat for Coeur d'Alene Salamanders in Montana is like that for the entire global range, and includes the three major habitat categories: springs and seeps, waterfall spray zones, and stream edges (Wilson and Larsen 1988, Werner and Reichel 1994, Boundy 2001, Maxell 2002).

More specifically, primary habitats are seepages and streamside talus; they also inhabit talus far from free water (deep talus mixed with moist soil on well-shaded north-facing slopes). In wet weather, it occurs also in leaf litter and under bark and logs in coniferous forests. The species is a terrestrial breeder, with eggs presumably laid in underground rock crevices, although no nest sites have been found in the wild.

All plethodontid salamanders respire through their skin; terrestrial species lose water to the environment through evaporation and are therefore restricted to cool, damp environments. Because Coeur d'Alene Salamanders may live in the harshest climate of any northwestern plethodontid (Nussbaum et al. 1983), they are highly dependent on the thermal and hydrologic stability provided by wet habitats in otherwise inhospitable surroundings. For this reason, Coeur d'Alene Salamanders are closely tied to water and are considered among the most aquatic plethodontids (Brodie and Storm 1970).

Coeur d'Alene Salamanders have been found in three major types of habitat: springs or seeps, waterfall spray zones, and edges of streams. Seventy-six percent of known locations are classified as seeps, 6% as waterfalls, and 17% as streams. Two sites occur in abandoned mines. However, the relative number of locations in each type is biased by differences in survey efficiency and probably does not reflect the importance of the different habitats. The abundance of seep locations is at least partly due to the relative ease of surveying roadside seeps. Streams and

waterfalls are often less accessible, particularly at night. Coeur d'Alene Salamanders are most difficult to find in streamside habitat, where they are usually observed underneath moist rocks on the banks adjacent to the water. Searches of 30 minutes to find a Coeur d'Alene Salamander at a stream site during daylight are not uncommon (Groves 1988).

Coeur d'Alene Salamander occurrences are generally located in coniferous forests, but are not restricted to a particular overstory species or aspect. Populations have been found in areas with ponderosa pine (*Pinus ponderosa*), Douglas-fir (*Pseudotsuga menziesii*), western larch (*Larix occidentalis*), western red cedar (*Thuja plicata*) and western hemlock (*Tsuga heterophylla*) overstories (Groves 1988, Groves et al. 1996) at all aspects.

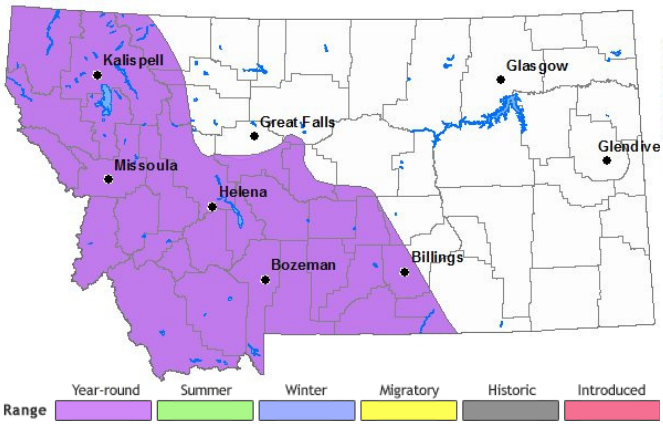
Ninety percent of 99 Idaho occurrences where habitat data have been collected were in areas of greater than 25% canopy cover and only two (both seeps) were in an area with 10% cover or less. Forest cover may be more important near stream sites than seep sites. Average cover at seven streamside sites (83% + or - 15%) was significantly greater than at seep locations (57% + or - 5%), (Cassirer et al. 1994). Minimum canopy cover measured at stream sites was 42%. Terrain at sites was typically steep, with average slopes of 62% (range 10-90%) (Groves 1988, Wilson 1991).

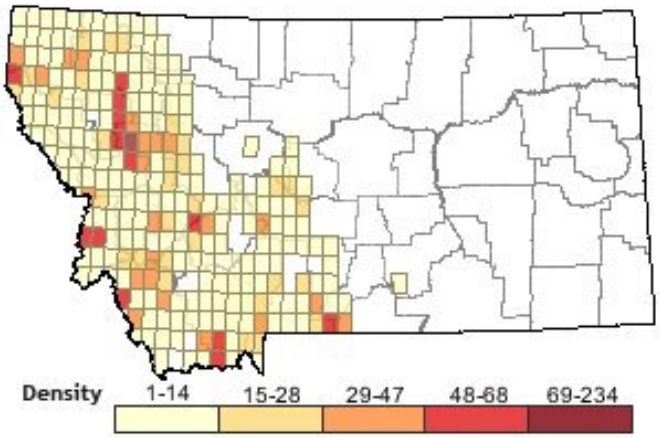
Known populations occur in association with sharply fractured rock formations (used for underground refugia) from 488 meters to 1,524 meters in elevation. This fractured rock is often found in the Belt Rock formation but can also occur in talus and in other geologic types (Wilson and Simon 1987, Groves and Cassirer 1989). The species is found in conjunction with both persistent and intermittent surface water. Thus, it is possible to locate Coeur d'Alene Salamanders at a wet site in the spring, yet be unable to find any animals at the same site later in the summer when the site is dry on the surface.

Columbia Spotted Frog - *Rana luteiventris*

Global Rank: G4
State Rank: S4

~~Agency Status~~
USFWS:
USFS:
BLM:





Number of Observations: 5770

General Description

Adults are light to dark brown, gray, or olive green with dark spots (frequently with lighter centers) on the back, sides, and legs. The number of spots and spotting pattern varies. The back and sides are often covered with small bumps. The undersides of the legs are bright red, salmon or orange; this bright color may extend up to the chin or be replaced by a light, mottled gray on the chin, chest, and/or belly. Adult body length is 2 to 4 inches. Eggs and Tadpoles: Eggs are laid at the water surface in large, globular masses of 150 to 500. Tadpoles are dark green with gold flecking above and iridescent bronze below. They may reach 3 inches in length; their eyes are located on the top of the head.

Habitat

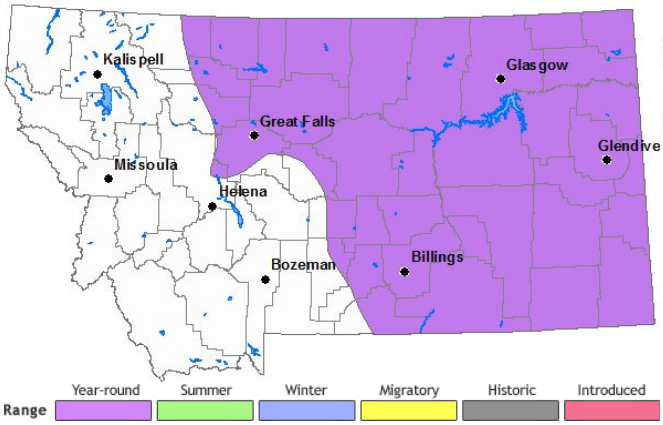
Columbia Spotted Frogs are regularly found at water's edge in or near forest openings. Wetlands at or near treeline are also used, but populations are uncommon in large, open intermountain valleys. Breeding takes place in lakes, ponds (temporary and permanent), springs, and occasionally backwaters or beaver ponds in streams. All the egg masses in a particular pond are often found in the same location at the margin of the pond. Young and adult Columbia Spotted Frogs often disperse into marsh and forest habitats, but are not usually found far from open water. Reproduction mainly in ponds, occasionally in springs, shallow streams, or puddles (Turner 1958). Found on grassy/swampy banks of mountain water bodies (Black 1969, Franz 1971), although may avoid dense/tall grass (Miller 1978). Feed mainly in riparian habitat, occasionally in bordering meadow/woods. Juveniles forage farther from water (Miller 1978).

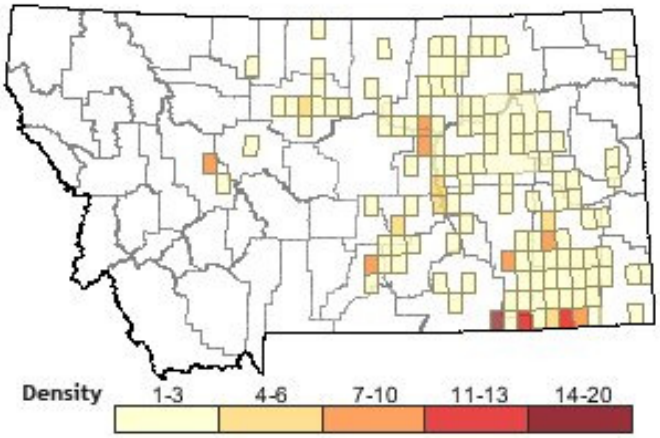
Great Plains Toad - *Anaxyrus cognatus*

~~Species of Concern~~

Global Rank: G5
State Rank: S2

~~**Agency Status**~~
USFWS:
USFS: SENSITIVE
BLM: SENSITIVE





Number of Observations: 355

General Description

The skin of adult Great Plains toads is covered with numerous small warts; cranial crests are prominent, and diverge posteriorly from a hard lump (boss) on top of the snout. The parotoid glands posterior to the eyes are elongate. The back exhibits a somewhat symmetrical pattern of large, light-edged dark spots or patches. The underside of the hind foot often has a sharp-edged tubercle and a smaller dark-tipped tubercle. Females can reach 11.4 centimeters snout-vent length (SVL); males are usually less than 9.5 centimeters SVL. Males have dark, loose throat skin and a dark patch on the inner surface of the innermost digit of the forefeet during breeding; the vocal sac when inflated may extend beyond the front of the face. The breeding call is a long continuous trill or pulsating ringing sound.

Juveniles have reddish warts. Tadpoles are initially blackish on the dorsum with light or gold flecking, then become paler and mottled brown; the dorsal pattern of large, paired blotches appears before metamorphosis is complete. The eyes are dorsal, and the dorsal fin is highly arched with some black dentritic lines. The upper mandible is highly arched, and labial tooth rows are usually 2/3, with oral papillae restricted to the sides of the mouth. Total length ranges from 25 to 35 millimeters. Eggs are black above, white below, and about 1.2 to 1.3 millimeters in diameter, usually in a single row in long strings of two-layered jelly that is constricted between individual eggs.

Habitat

Little specific information on the habitat of Great Plains Toad is available. It has been reported from sagebrush-grassland, rainwater pools in road ruts, in stream valleys, at small reservoirs and stock ponds, and around rural farms; breeding has been documented in small reservoirs and backwater sites along streams (Mosimann and Rabb 1952, Dood 1980, Hendricks 1999, Hossack et al. 2003, P. Hendricks personal communication).

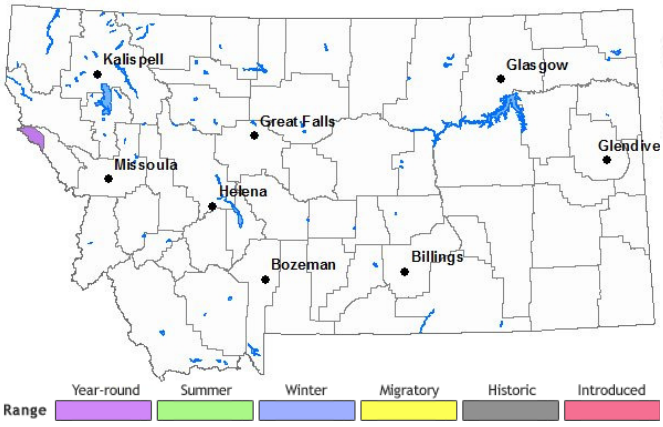
Information gathered from other locations indicates that when inactive, the Great Plains Toad is found in burrows, and under rocks or wood. During the active season, it occupies burrows during the day that are quite shallow. This species enters water only to breed. It breeds in rain pools, flooded areas, and ponds and reservoirs that fluctuate in size, and appears to prefer stock tanks and roadside ponds rather than floodplains (Baxter and Stone 1985). Eggs and larvae develop in shallow water, usually clear or slightly turbid, but not muddy.

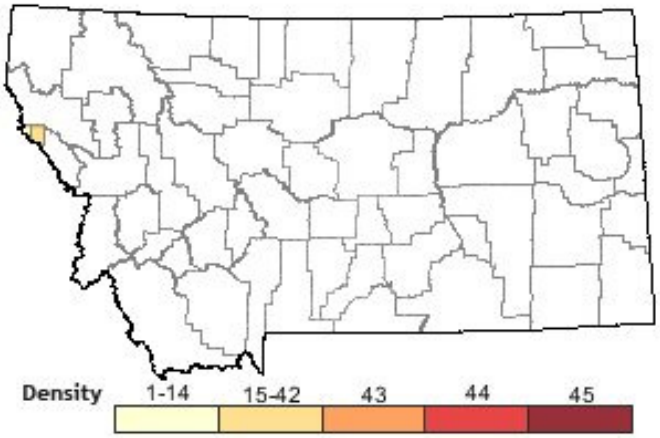
Idaho Giant Salamander - *Dicamptodon aterrimus*

~~Species of Concern~~

Global Rank: G3
State Rank: S2

~~**Agency Status**~~
USFWS:
USFS:
BLM:





Number of Observations: 56

General Description

Adults have light or tan bronze marbling on a dark brown or black background. They are heavy-bodied, with a large head and muscular legs; body length varies from 3.5 to 8 inches. Eggs and Larvae: Larvae are identified by their short, bushy, external gills; their large size; a dorsal fin starting at or behind the rear limbs; and their stream habitat. Other larval salamanders in Montana live in ponds have long, feather gills, and a dorsal fin originating far forward of the rear legs.

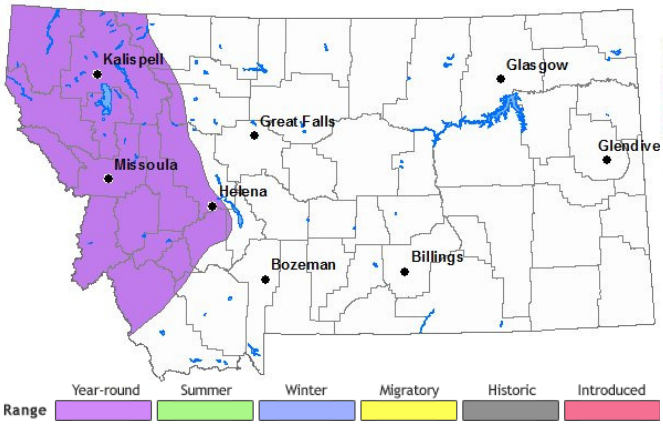
Habitat

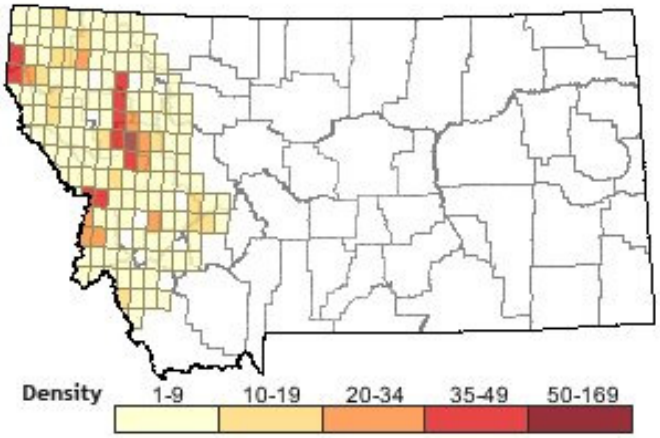
Known to occur up to 2160 m in elevation (Nussbaum et al. 1983). Transformed adults, although seldom seen, inhabit moist coniferous forests where they may be found under logs, bark, or rocks. They are most active on warm, rainy nights. Larvae are usually found in swift, cold mountain streams, but may occasionally be found in lakes or ponds (Reichel and Flath 1995).

Long-toed Salamander - *Ambystoma macrodactylum*

Global Rank: G5
State Rank: S4

~~Agency Status~~
USFWS:
USFS:
BLM:





Number of Observations: 2345

General Description

Adults are dark gray to black with an irregular (sometimes broken or rarely absent) green to yellow stripe down the middle of the back. The longest toe on the hind foot is longer than the sole; this species lacks a groove running vertically from the nostril to the mouth. Adult body length is 2 to 3.25 inches. Eggs and Larvae: Eggs are typically laid in ponds in small clusters of 5 to 100, but eggs may be laid singly. Larvae are usually brown, have three external gills, and are relatively small (less than 1.75-inch body) and slender.

Habitat

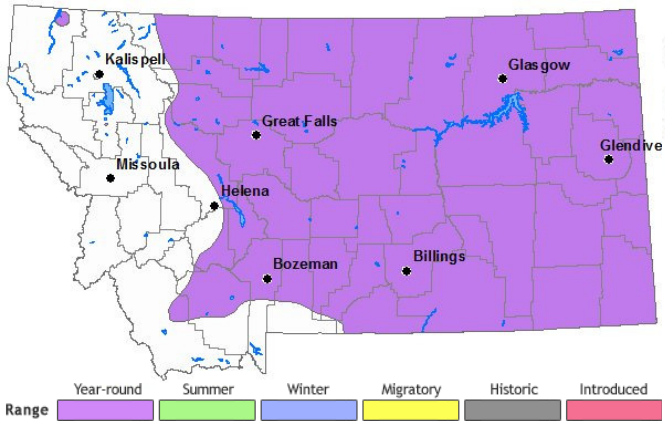
Long-toed Salamanders are found in a variety of habitats from sagebrush to alpine. They typically breed in ponds or lakes, usually those without fish present. Adults go to the breeding ponds immediately after snowmelt and in western Montana are usually the first amphibians to breed. Like all salamanders, they have internal fertilization. Following breeding, they move to adjacent uplands. Eggs hatch in 3 to 6 weeks and metamorphosis takes 2 to 14 months. Migration routes to breeding pools showed no preference to habitat, relative soil moisture or vegetation, although individuals tended to move through same habitat (Beneski et al. 1986).

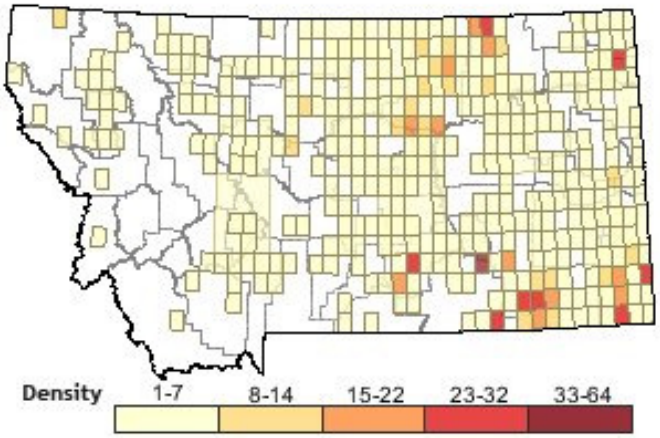
Northern Leopard Frog - *Lithobates pipiens*

~~Species of Concern~~

Global Rank: G5
State Rank: S1,S4

~~**Agency Status**~~
USFWS:
USFS: SENSITIVE
BLM: SENSITIVE





Number of Observations: 1982

General Description

The backs of adult Northern Leopard Frogs and juveniles are a green or brown base color (rarely light bluish) covered with large, oval dark spots, regular in outline, each of which is surrounded by a lighter halo or border. Ventral color is white to cream, with some pinkish patches on the feet. The skin is smooth, the dorsolateral folds are not inset toward the midline on the rump, the tympanum (eardrum) usually lacks a distinct light spot, and the hind toes have extensive webbing. Snout-vent length (SVL) is 1.8 to 11.0 centimeters. The breeding call of males is a snoring sound lasting 2 to 3 seconds followed by a series of 2 to 3 stuttering croaks or chuckles.

Larvae (tadpoles) are dark brown to olive or gray on the back with a flecking of light gold and black, more concentrated on the sides, and then merging with a silvery-white or transparent belly. Tail length is less than 1.5 times the body length, the dorsal tail fin begins anterior to the tail musculature when viewed from the side. The anus is on the right side in front of the fin, not on the midline. The eyes fall within the outline of the head when viewed from above. Lateral oral papillae are strongly indented toward the corners of the mouth, and the lower mandible is noticeably thicker than the upper. The total length of tadpoles is 5.5 to 10.0 centimeters. The eggs are black above and white below, and are laid in large (orange- to grapefruit-sized) somewhat flattened globular masses; total diameter of individual eggs (including the two jelly layers) is less than 6.0 millimeters. Masses are usually attached to submerged vegetation.

Habitat

Habitats used by Northern Leopard Frog in Montana are similar to those reported for other regions, and include low elevation and valley bottom ponds, spillway ponds, beaver ponds, stock reservoirs, lakes, creeks, pools in intermittent streams, warm water springs, potholes, and marshes (Brunson and Demaree 1951, Mosimann and Rabb 1952, Black 1969, Miller 1978, Dood 1980, Reichel 1995, Hendricks and Reichel 1996, Hendricks 1999). There is no evidence that this species in Montana has ever occupied high elevation wetlands, in contrast to Wyoming and Colorado (Baxter and Stone 1985, Hammerson 1999).

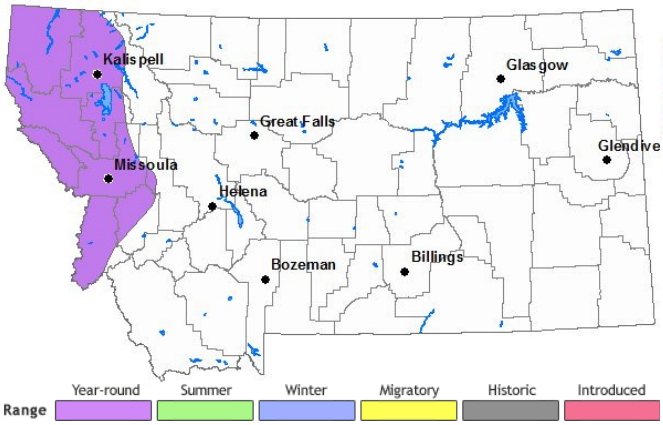
More specifically, Northern Leopard Frogs require a mosaic of habitats to meet annual requirements of all life stages. Generally separate sites are used for breeding and overwintering, but this may occur in the same pond in some cases. They occupy a variety of wetland habitats of relatively fresh water with moderate salinity, including springs, slow streams, marshes, bogs, ponds, canals, flood plains, beaver ponds, reservoirs, and lakes, usually in permanent water with rooted aquatic vegetation. Habitats are often with few or no trees, but in Alberta and Colorado forested areas may be used. In summer, adults and juveniles commonly feed in open or semi-open wet meadows and fields with shorter vegetation, usually near the margins of waterbodies, and seek cover underwater; taller, denser vegetation seems to be avoided.

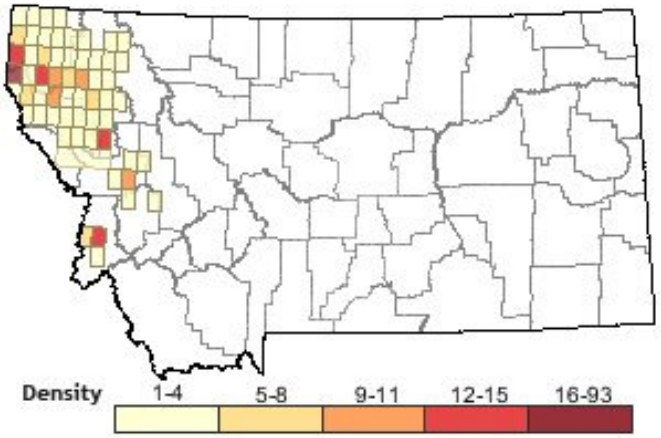
Eggs are laid and larvae usually develop in shallow warm and still water, generally in areas well exposed to sunlight. Generally eggs are attached to vegetation just below the surface of the water. In northern Minnesota, successful reproduction in acidic bog water either does not occur or is a rare event (Karns 1992). During winter, Northern Leopard Frogs usually are found inactive underwater on the bottom of deeper streams and ponds or springs that do not freeze to the bottom and are well oxygenated, sometimes under bottom rubble and debris, in water as deep as 85 centimeters (Baxter and Stone 1982, Nussbaum et al. 1983, Russell and Bauer 1993, Wagner 1997, Hammerson 1999).

Pacific Treefrog - *Pseudacris regilla*

Global Rank: G5
State Rank: S4

~~Agency Status~~
USFWS:
USFS:
BLM:





Number of Observations: 426

General Description

Adults have a dark, conspicuous eye line extending from the nostril to the shoulder. Basic coloration varies, with background color green, brown, gray, reddish, or bronze. Dark spots and stripes are often visible on the head, back, and legs. Most have a dark Y or triangular spot on the head between the eyes. Adult body length is 0.75 to 2 inches. Eggs and Tadpoles: Eggs are laid in small clusters of 10 to 70. The tadpoles are brown/bronze with eyes located on the sides of the head.

Habitat

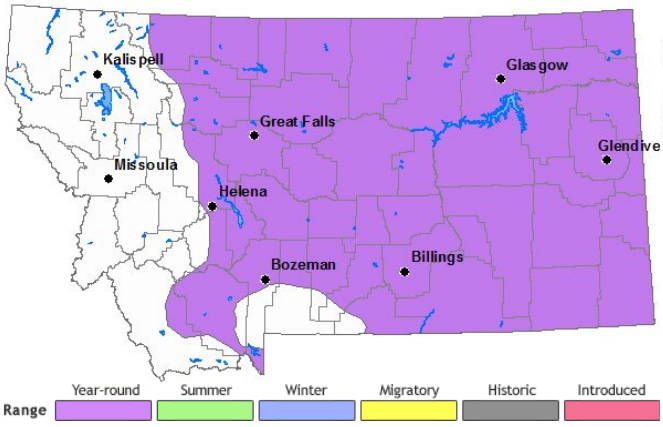
Pacific Chorus Frogs are regularly found in the water only during the breeding period in spring. They announce their presence during this time by calling frequently at night and sporadically throughout the day. Following breeding, they move into adjacent uplands and are rarely seen. In western Montana they breed in temporary ponds in lower elevation forests and intermountain valleys shortly after snowmelt. Eggs hatch in 2 to 3 weeks and tadpoles take 8 to 10 weeks to metamorphose. Use shallow, quiet waters for breeding. Move along ground or in low shrubs at night. Take shelter during day in dense vegetation, under rocks/logs, in rodent burrows, etc. (Nussbaum et al. 1983).

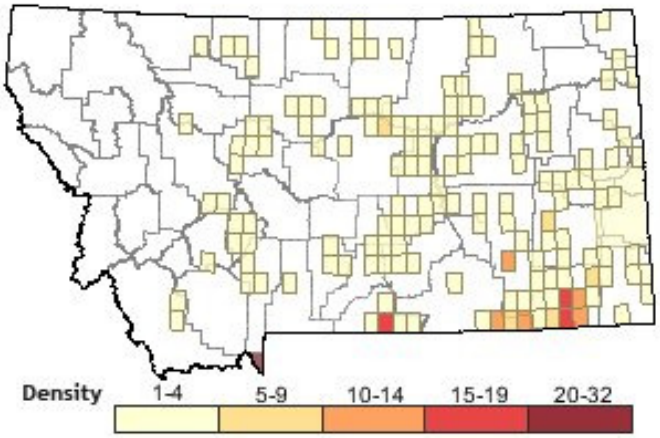
Plains Spadefoot - *Spea bombifrons*

~~Species of Concern~~

Global Rank: G5
State Rank: S3

~~**Agency Status**~~
USFWS:
USFS: SENSITIVE
BLM: SENSITIVE





Number of Observations: 551

General Description

Adult Plains Spadefoot are gray or brown with darker mottling on the back and white on the belly. The back may be covered with smallish tubercles tipped in yellow or orange, and often present as a rough hourglass-shaped marking. Some individuals have indistinct longitudinal streaking. In adults the pupils are vertically elongate in bright light; there is a hard lump or "boss" between the eyes, slightly anterior of an imaginary midline connecting the eyes. Prominent parotoid glands posterior to the eyes are absent. A single hard and dark wedge-shaped spade is present on each hind foot. Maximum snout-vent length (SVL) is about 6.0 centimeters. Males have dark patches on the inner 2-3 digits of the forelimbs during breeding, and have an expanded bi-lobed vocal sac. The male breeding call is a brief snore.

Tadpoles may be brown or green to whitish on the back, or mottled gray to dull olive-yellow, sometimes with a bluish iridescence. The belly is an iridescent golden color; the gut coil is not visible through the body wall. The dorsal fin is clear or with sparse yellowish flecking; the anus is at the base of the tail on the midline. The body shape is globular, with the eyes positioned dorsally, and total length is usually up to 7.0 centimeters. The mandibles are frequently cusped; labial tooth rows are 0/0 to 6/6, but most often 3/4 or 4/4. Oral papillae completely encircle the mouth. Eggs are black above and white below, about 1.5 to 1.6 millimeters in diameter and surrounded by two jelly layers, and deposited in elliptical masses of 10 to 250 eggs.

Habitat

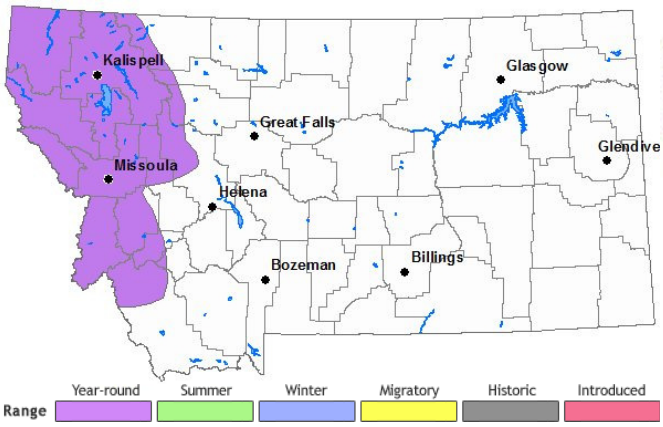
Little specific habitat information is available. This species is usually found in areas with soft sandy/gravelly soils near permanent or temporary bodies of water. For much of each year it lives largely inactive in burrows of its own construction or occupies rodent burrows, and enters water only to breed. Following heavy rains, adults have been

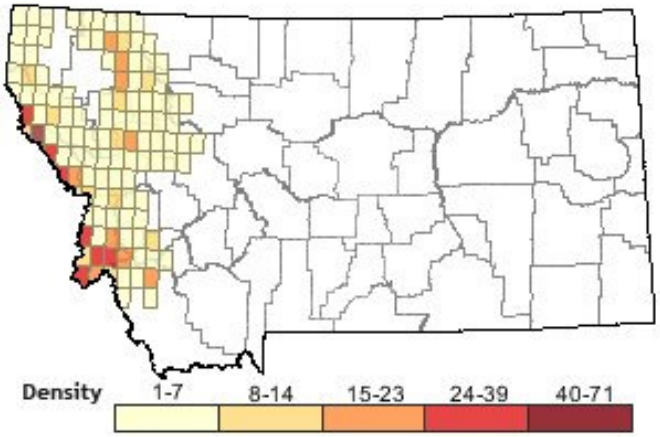
reported in water up to 30 centimeters deep in flooded wagon wheel ruts, temporary rain pools formed in wide flat-bottom coulees, water tanks, and badland seep ponds, and tadpoles and toadlets have been observed in stock ponds and small ephemeral reservoirs, usually in sagebrush-grassland habitats (Cope 1879, Mosimann and Rabb 1952, Dood 1980, Reichel 1995, Hendricks 1999, Hossack et al. 2003).

Rocky Mountain Tailed Frog - *Ascaphus montanus*

Global Rank: G4
State Rank: S4

~~Agency Status~~
USFWS:
USFS:
BLM:





Number of Observations: 1395

General Description

Adults are gray or brown with gray, brown, or occasionally yellow blotches; the skin has a distinctly bumpy texture. Adult body length is 1.5 to 2 inches. The outer tow of the hind foot is broader than the other toes. Tailed frogs have no external ear drum. The male has a bulbous "tail" that acts as a penis. Eggs and Tadpoles: Approximately 50 eggs are laid in rosary-like strings attached to the underside of rocks. The tadpole (up to 2 inches long) is unique in that it has a large mouth modified into a sucker; color is variable.

Habitat

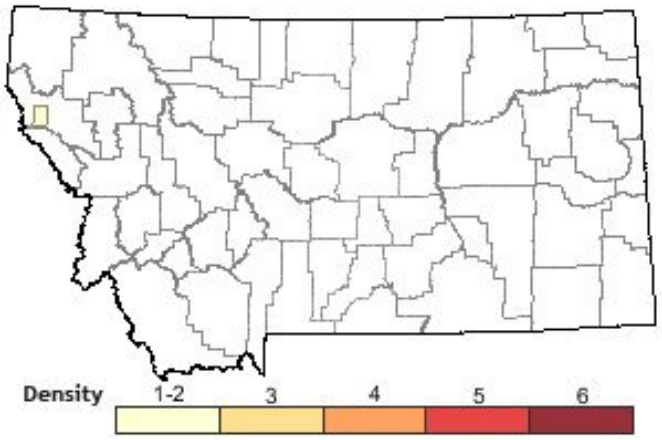
Rocky Mountain Tailed Frogs are found in and along small, swift, cold mountain streams. Eggs are laid during late summer and take approximately 4 weeks to hatch. Tadpoles take 1 to 4 years to metamorphose, depending on water temperature. Sexual maturity in Montana is attained at 6 or 7 years of age (the latest of any North American amphibian). Forested streams. In Flathead area, larvae found only in streams with temp under 16 C. Prefer fast streams, less than 14 ft wide, with substrate of slabby-flat bottomed rocks with little aquatic vegetation (Franz and Lee 1970).

Roughskin Newt - *Taricha granulosa*

~~**Exotic Species (not native to Montana)**~~

Global Rank: G5
State Rank: SNA

~~**Agency Status**~~
USFWS:
USFS:
BLM:



Number of Observations: 2

Habitat

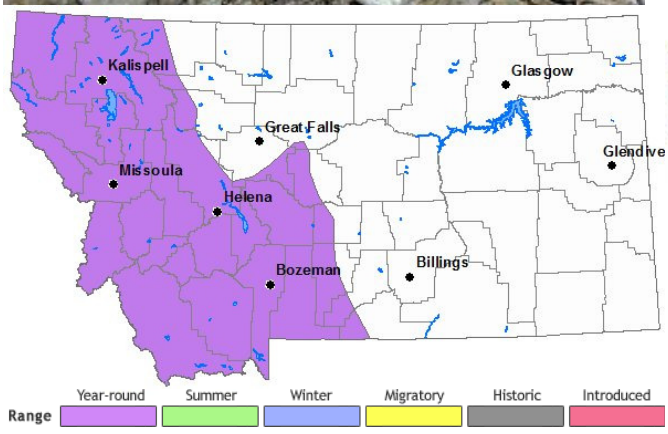
Most common in mesophytic forests of conifers or hardwoods, although they also occur in open valleys/farmland. In lakes, concentrate in warmer shallows early then move deeper as temperature increases. Concentrate at tangled vegetation, tree roots.

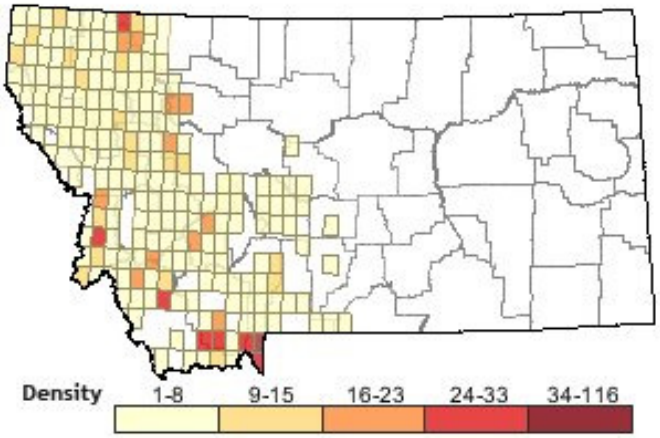
Western Toad - *Anaxyrus boreas*

~~Species of Concern~~

Global Rank: G4
State Rank: S2

~~**Agency Status**~~
USFWS:
USFS: SENSITIVE
BLM: SENSITIVE





Number of Observations: 1998

General Description

The skin of adult Western Toads is covered with small round or oval warts on a background color that is usually green or brown; the warts may be reddish-brown and encircled by dark pigment. Parotoid glands are oval and larger than the eyes, cranial crests are absent or indistinct. The eyes have horizontal pupils. Usually there is a light stripe down the middle of the back, but this may be absent or inconspicuous in juveniles. The underside of each hind foot has two brown tubercles that lack sharp cutting edges. Mature males have a dark patch on the inner surface of the innermost digit ("thumb") during breeding. Males lack a vocal sac, however, they may produce a repeated chirping sound. Males rarely exceed 9.5 centimeters snout-vent length (SVL), females rarely 11.0 centimeters.

The body and tail of tadpoles is black or dark brown, with the eyes about midway between the dorsal midline and edge of the head. Labial tooth rows are 2/3, oral papillae are restricted to the sides of the mouth, and the anus is on the midline at the front end of the ventral tail fin; maximum total length is about 3.5 centimeters. The eggs are black, about 1.5 to 1.8 millimeters diameter, and are laid in long 5 millimeters-wide strings of double-layered jelly in two rows (sometimes one or three) that appear to be a single zigzag row.

Habitat

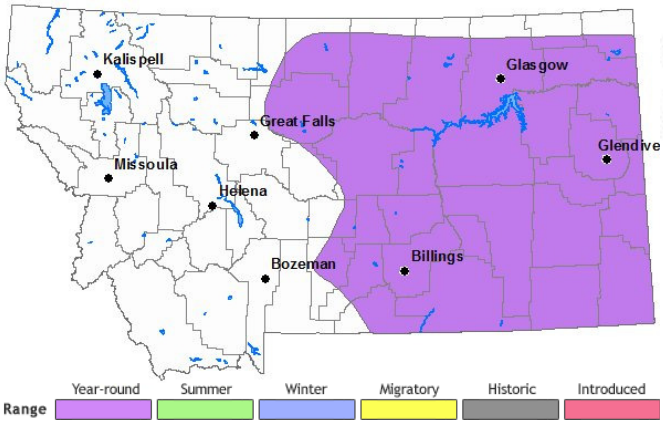
Habitats used by Western Toads in Montana are similar to those reported for other regions, and include low elevation beaver ponds, reservoirs, streams, marshes, lake shores, potholes, wet meadows, and marshes, to high elevation ponds, fens, and tarns at or near treeline (Rodgers and Jellison 1942, Brunson and Demaree 1951, Miller 1978, Marnell 1997, Werner et al. 1998, Boundy 2001). Forest cover in or near encounter sites is often unreported, but Western Toads have been noted in open-canopy ponderosa pine woodlands and closed-canopy dry conifer forest in Sanders County (Boundy 2001), willow wetland thickets and aspen stands bordering Engelmann spruce stands in Beaverhead County (Jean et al. 2002), and mixed ponderosa pine/cottonwood/willow sites or Douglas-fir/ponderosa pine forest in Ravalli and Missoula counties (P. Hendricks personal observation).

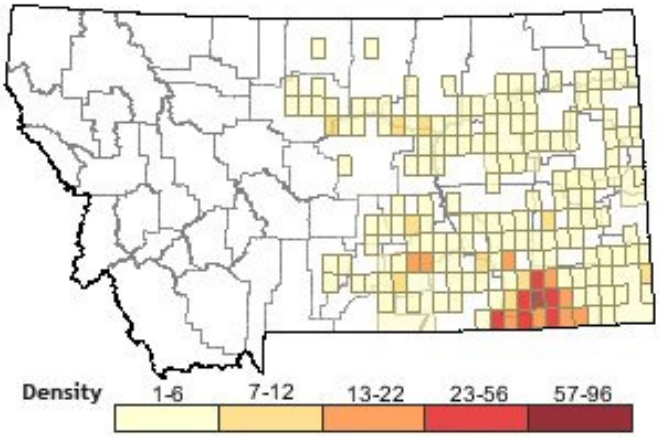
Elsewhere the Western Toad is known to utilize a wide variety of habitats, including desert springs and streams, meadows and woodlands, mountain wetlands, beaver ponds, marshes, ditches, and backwater channels of rivers where they prefer shallow areas with mud bottoms (Nussbaum et al. 1983, Baxter and Stone 1985, Russell and Bauer 1993, Koch and Peterson 1995, Hammerson 1999). Forest cover around occupied montane wetlands may include aspen, Douglas-fir, lodgepole pine, Engelmann spruce, and subalpine fir; in local situations it may also be found in ponderosa pine forest. They also occur in urban settings, sometimes congregating under streetlights at night to feed on insects (Hammerson 1999, P. Hendricks personal observation). Normally they remain fairly close to ponds, lakes, reservoirs, and slow-moving rivers and streams during the day, but may range widely at night. Eggs and larvae develop in still, shallow areas of ponds, lakes, or reservoirs or in pools of slow-moving streams, often where there is sparse emergent vegetation. Adult and juvenile Western Toads dig burrows in loose soil or use burrows of small mammals, or occupy shallow shelters under logs or rocks. At least some Western Toads hibernate in terrestrial burrows or cavities, apparently where conditions prevent freezing (Nussbaum et al. 1983, Koch and Peterson 1995, Hammerson 1999).

Woodhouse's Toad - *Anaxyrus woodhousii*

Global Rank: G5
State Rank: S4

~~Agency Status~~
USFWS:
USFS:
BLM:





Number of Observations: 1431

General Description

Adults have dry skin with small warts, and are gray, brown, or olive green with paler mottling or spots. A prominent white or yellowish line runs down the center of the back (very young transformed toads typically lack the dorsal line and often have reddish brown warts). Adult body length is 2.5 to 5 inches. Parallel cranial crests are present between the eyes and the post-orbital crests connect them at a right angle behind the eyes; the post-orbital crests typically touch the parotoid glands. If a lump is present on the snout it does not extend back between the eyes. Adults have two black tubercles on each hind foot. Eggs and Tadpoles: Similar to the Western Toad.

Habitat

Adults are partially terrestrial but usually found near water; they typically breed in permanent lakes, ponds, reservoirs, and slow streams, where they prefer shallow areas with mud bottoms. They are usually found in irrigated agricultural areas and floodplains. Breeding and egg laying is spread out over spring and early summer. Most records are from non-forested eastern MT, but some occur in transition vegetation in ponderosa pine and savannah forests (Black 1970). Found in floodplains and moist grass areas around water (Black 1970, Baxter and Stone 1980).